

We claim:

1. A latch mechanism for producing a releasable connection of a housing portion (4) with a further housing portion (1), projections being provided on one of the housing portions, and for producing a releasable connection by means of a rotational motion of the housing portions relative to one another, the latch projections (25) latchingly engaging in associated latch recesses (58), wherein the latching mechanism (21) includes a rotatably mounted ring element (57) comprising the recesses (58) for receiving the projections (25), the latching mechanism being connectable by means of further latch recesses (51) and further latch projections (59) to the further housing portion (7).
2. The latch mechanism according to claim 1, wherein at least one spring element (67) cooperates with the ring element (57), and upon production of the releasable connection with the housing portions (4, 9), stress energy of the at least one spring element (67) is released.
3. The latch mechanism according to claim 1, wherein the further latch projection (59) and the further latch recess (51) are arranged with perpendicular alignment in relation to an alignment of the projections (25).
4. The latch mechanism according to claim 2, wherein the ring element (57) moves in an axial direction along an optical axis of the housing (20) when the spring element (67) is relieved.
5. The latch mechanism according to claim 2, wherein the further latch projection (59) comprises the spring element (67).

6. The latch mechanism according to claim 1, wherein a spring force of the at least one spring element acts in a radial direction and the latch groove or the latch projection is arranged on a periphery of the ring element (57) with radial alignment.
7. The latch mechanism according to claim 1, comprising a plurality of parallel acting spring elements (67).
8. The latch mechanism according to claim 1, wherein a plurality of further latch projections (59) with associated latch recesses (51).
9. The latch mechanism according to claim 6, wherein respectively two spring elements are arranged diametrically oppositely, so that on latching the ring element (57), a co-axial arrangement to the optical axis (20) of the housing is retained.
10. The latch mechanism according to claim 1, further comprising main springs (41) for compensation of an axial play of the housing portion and the further housing portion relative to one another.
11. The latch mechanism according to claim 10, wherein the main springs (41) are under stress only when the housing portions (4, 9) are connected.
12. The latch mechanism according to claim 10, wherein the main springs (41) come into active connection with the projections (25) for compensating the axial play.
13. The latch mechanism according to claim 1, wherein the ring element (57) is arranged between a cover (73) and a sleeve (29), the cover (73) and the sleeve (29) being arranged stationary to one of the housing portions (9).
14. The latch mechanism according to claim 13, wherein the ring element (57) is rotatable by a predetermined angular amount by means of stops.

15. The latch mechanism according to claim 3, wherein the further latch recess (51) or the further latch projection (59) has a ramp (60) in a direction of rotation of the ring element (57) for releasing the latch connection.
16. The latch mechanism according to claim 15, wherein a slope of the ramp is chosen so that a moment required for releasing a connection is greater than a moment required for producing a connection of the two housing portions (4, 9).
17. An eyepiece for an optical device, wherein the eyepiece comprises a housing portion (4) which is connectable to the optical device (1) of the housing by means of a latch mechanism according to claim 1.
18. A telescope with an interchangeable eyepiece, comprising a latch mechanism (21) according to claim 1 for producing a releasable connection of the eyepiece (3) to the telescope (1).